

## **Postdoctoral position (12 months, extendable)**

### **Development of Advanced Sustainable Building Materials based on Biomass Waste for Energy Storage Applications**

#### **Context and project objectives**

The use of biomass coproducts including wood and agricultural product wastes to develop the smart building envelopes is of great interest today as it is identified as part of the sustainable developments and ecological transition to reduce energy consumption, CO<sub>2</sub> emissions and climate change. The originality and objectives of this project is to develop advanced sustainable building materials and characterize the hygrothermal dynamics and behavior, IAQ, energy storage ability and interaction of building with outdoor environment under various climate types.

The methodology leverages the synergistic relationship between multi-scale experimental and numerical simulation approaches using the equipment and models developed and available at LERMaB laboratory, Université de Lorraine.

#### **Host laboratory**

The LERMAB is a multi-disciplinary laboratory at the Université de Lorraine. Web: <https://lermab.univ-lorraine.fr/qui-sommes-nous>. The postdoc will take place within the Laboratory LERMaB, Université de Lorraine, 186 Rue de Lorraine, 54400 Longwy, France (bordering Luxembourg and Belgium).

#### **Requirements:**

The candidate should have skills in the fields of material composites, sustainable building materials, building energy and environment, building and energy, heat and mass transfer, modelling simulation.

The candidate will work with PhD students and masters interns in the research team to valorise research results.

**Start of the position:** no later than January 2026 for a duration of 12 months. It may be renewed based on the candidate's performance.

**Salary:** Negotiable depending on candidate's experience (2400 ~ 2700 euros net per month)

#### **Application:**

Please send your application (detailed CV, recommendation letters from PhD supervisors) to PI project:

Dr. Dang Mao NGUYEN,

Associate Professor HDR,

[dang.nguyen@univ-lorraine.fr](mailto:dang.nguyen@univ-lorraine.fr)